

Claims:

1. A refining chamber made essentially of platinum group metal material for glass production, comprising: a chamber in the shape of a tube having a cross section, wherein the refining chamber comprises at least one segment shaped so that when the tube is in operating position, a horizontal line that divides the cross section into an upper section and a lower section is essentially greater than twice the maximum vertical extent of the lower section.
2. The refining chamber according to claim 1, wherein the refining chamber has a wall thickness of approximately 0.5 mm to 3 mm, preferably 0.7 mm to 1.5 mm, and is stiffened by shaping measures, said shaping measures comprising forming of creases, corners, waves, folds, or combinations thereof, at the circumference of the refining chamber.
3. The refining chamber according to any one of the preceding claims, wherein the ratio of the length of the horizontal line to the maximum vertical extent of the lower segment of the surface is between 2.5:1 and 5:1.
4. The chamber according to any one of the preceding claims, wherein the ratio of the length of the horizontal line to the maximum vertical extent of the lower section is between 3:1 and 4:1.
5. The refining chamber according to any one of the preceding claims, wherein at least one cross section exists in the tube that is in the shape of an ellipse.
6. The refining chamber according to any one of claims 1 to 4, wherein at least one cross section exists in the tube that is in the shape of an oval, a slot, a rounded triangle, a polygon, or combinations thereof.

7. The refining chamber according to any one of the preceding claims, wherein the refining chamber is essentially manufactured from an ODS material and preferably a FKS 16 Pt alloy.
8. A process for refining glass in which the molten glass flows through a tubular refining chamber, particularly according to any one of the preceding claims, comprising:
 - allowing glass in the molten state at a temperature of 1000 °C to 1700 °C to flow through the refining chamber, wherein the cross section of the refining chamber is, in at least one segment, shaped so that in the operating position, the length of a horizontal line that divides the surface of the cross section into a lower and an upper section of the surface, both of which have essentially the same area, is essentially greater than twice the maximum vertical extent of the lower segment of the surface.
9. The process according to claim 8, further comprising adjusting the level of the molten glass so that the surface of the glass perpendicular to the direction of flow of the molten glass has a width which is more than twice as great as the maximum vertical extent of the molten glass in the refining chamber.
10. A process for refining glass in which molten glass flows through a tubular refining chamber according to any one of the preceding claims, comprising:
 - adjusting the level of the molten glass so that the surface of the glass perpendicular to the direction of flow of the molten glass has a width which is more than twice as great as the maximum vertical extent of the molten glass in the refining chamber.
11. A process for producing a refining chamber according to any one of the preceding claims, comprising:
 - (a) inserting a smooth-walled tubular segment having two axial ends into a cylindrical mold having an inside diameter and an outside diameter, wherein the

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tubular segment has an inside diameter and an outside diameter, and wherein the inside diameter is essentially the same as the outside diameter, and wherein the tubular segment has corrugation-like radial depressions;

(b) providing each of the axial ends of the tubular segment with a compression tool that closes the end of the tube tightly, forming a space;

(c) filling the space so formed completely with a hydraulic liquid;
and

(d) generating an internal hydraulic pressure by exerting an axial compression through the compression tools in such a manner that the walls of the tubular segment are corrugated to match the depressions in the mold with simultaneous shortening of the tubular segment.

12. Use of a refining chamber and/or a process according to any one of respective preceding claims for refining glass.